JUN 2 0 2005 EL TRADEM

Sheet

PTC/SB/08a/b (08-03)
Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information until ess it contains a valid OMB control number

Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

1 of

Complete If Known				
Application Number 10/789,100-Conf. #7692				
Filing Date	February 27, 2004			
First Named Inventor Douglas S. Lacy				
Art Unit 3644				
Examiner Name S. A. Holzen				
Attorney Docket Number	030048107US			

U.S. PATENT DOCUMENTS							
Examiner Cite			A	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
s• /	Vo.	Number-Kind Code ² (#known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear		
W		US-10/671,435		Kelley-Wickemyer			
		US-10/770,256					
		US-2004-0195464-A1	10-07-2004	Vassberg et al.	:		
	7	US-20050011994-A1	01-20-2005	Sakurai et al.			
		US-20050017126-A1	01-27-2005	McLean et al.			
$\langle \cdot \rangle$		US-6,799,739	10-05-2004				
	• /	10.	Number-Kind Code ² (#known)	Document Number	Document Number Publication Date Name of Patentee or		

1

	FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ ((I known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not *EXAMINEK: Initial if reference considered, whether or not citation is in contormance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to application. * CITE 0.2. Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.18 if possible. * Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

Examiner	11-0	Date	0/1/1/01
Signature	110/10	Considered	$1 a 11 \mu 1/2$
Oignature	VID ()	Considered	1 (11-110-3
			/ /

THE TRADEM

PTC/SB/08a/b (08-03)
Approved for use through 07/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are require

Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

1 Sheet of

red to respond to a collection of	information unless it contains a valid OMB control number.				
Complete If Known					
Application Number 10/789,100-Conf. #7692					
Filing Date February 27, 2004					
First Named Inventor Douglas S. Lacy					
Art Unit 3644					
Examiner Name S. A. Holzen					
Attorney Docket Number 030048107US					

	U.S. PATENT DOCUMENTS					
Examiner Cite		Document Number	Publication Date Name of Patentee or	Name of Patentee or	Pages, Columns, Lines, Where	
Initials*	No.	Number-Kind Code ² (#known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	
$\mathcal{N} \mathcal{I}$		US-10/671,435		Kelley-Wickemyer		
The state of		US-10/770,256		Speer		
		US-2004-0195464-A1	10-07-2004	Vassberg et al.		
		US-20050011994-A1	01-20-2005	Sakurai et al.		
CI		US-20050017126-A1	01-27-2005	McLean et al.		
3/1		US-6,799,739	10-05-2004			

	FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. * Applicant's unique citation designation number (optional). * See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. * Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). * For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. * Sind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English tanguage Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, sarial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	. T2
			1

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Signature WHOPL, A	Date Conside	ered 8	30	05
1 "0				

Applicants unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

PTC/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information untess it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of

Complete if Known					
Application Number 10/789,100-Conf. #7692					
Filing Date February 27, 2004					
First Named Inventor Douglas S. Lacy					
Art Unit . 3644					
Examiner Name	Examiner Name S. A. Holzen				
Attorney Docket Number 030048107US					

	U.S. PATENT DOCUMENTS						
1				Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Pessages or Relevant Figures Appear		
		US-2,938,680	05-31-1960	Lawrence et al.			
T/X	1	US-5,039,032	08-13-1991	Rudolph			

1

		FORE	SN PATENT I	DOCUMENTS		_
Examiner Initials*	Cite No.	Foreign Patent Document Country Code ³ -Number -Kind Code ⁵ (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Cotumns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁰

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
_	Examiner Cite Initials No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		International Search Report for PCT/US2005/005233; Applicant: The Boeing Company; European Patent Office; dated June 1, 2005 (3 pgs)	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). 'Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature

Date Considered 8/31/05

INTERNATIONAL SEARCH REPORT

'-'rternational Application No |' PCT/US2005/005233

A. CI IPC	LASSIFICATION OF SUBJECT MATTER 7 B64C9/24						
A 2001	The te (stamptional Patent Chaptification (IDC) or to both national chaptific	calco and IBO					
According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED							
	num documentation searched (classification system followed by classificati	on symbols)					
Docui	mentation searched other than minimum documentation to the extent that s	such documents are included. In the fields so	earched				
Electr	ronic data base consulted during the International search (name of data ba	se and, where practical, search terms used	0				
EP0	-Internal, WPI Data						
c. pc	DCUMENTS CONSIDERED TO BE RELEVANT						
Categ	gory * Cdation of document, with indication, where appropriate, of the rel	evant passages	Relevant to claim No.				
A	US 4 293 110 A (MIDDLETON ET AL) 6 October 1981 (1981-10-06) abstract		1-50				
A	13 August 1991 (1991-08-13) abstract		1-50				
A	column 2, line 60 - line 62 column 3, line 16 - line 19 figures 3,7,9 US 2 938 680 A (GREENE LAWRENCE F 31 May 1960 (1960-05-31)	P ET AL)	1-50				
	column 3, line 59 - column 4, lir figure 1	ne 9					
	Further documents are listed in the continuation of box C.	X Patent family members are listed in	n annex.				
'A' di	riing care ocument which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) locument referring to an oral disclosure, use, exhibition or other means ocument published prior to the international filling date but	'T' tater document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combined with one or more other such documents, such combination being obvious to a person skilled in the art. '8' document member of the same patent family					
Date	of the actual completion of the international search 20 May 2005	Date of mailing of the international sear	rch report				
Name	and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Estrela y Calpe,	J				

Form PCT/ISA/210 (second sheet) (January 2004)

8/30/05

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

information on patent family members

nternational Application No
PCT/US2005/005233

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4293110	Α	06-10-1981	NONE		
US 5039032	Α	13-08-1991	NONE		·
US 2938680	Α	31-05-1960	NONE		